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THE ATLATL OR SPEAR-THROWER

OF THE

ANCIENT MEXICANS.

BY

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WITH THREE PLATES.

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EDITORIAL NOTE.

All who have read Mrs. Nuttall's memoir on "An Ancient Mexican Head-dress," published as No. 1 of the Museum Papers in 1888, will be specially interested in this second number of her series of essays illustrating the life and customs of the ancient Mexicans. Mrs. Nuttall's knowledge of the Nahuatl language and her familiarity with the original sources of information relating to Mexico, together with her exceptional opportunities for investigation during several periods of residence in Mexico as well as in various European cities, give to all she writes the stamp of authority; while her painstaking and thoroughness of investigation are apparent upon every page. It is therefore with great satisfaction that this second essay is published by the Museum, and the statement made that it will soon be followed by another of the series.

The manuscript here printed was received from the author in the summer of 1890, and an abstract of the paper was read before the Anthropological Section of the American Association for the Advancement of Science at the Indianapolis Meeting on August 25, 1890, and is printed in the Proceedings of the Meeting. The drawings illustrating the present paper were made under the author's direction in Dresden, and are here reproduced by the photographic process.

F. W. Putnam,
Curator of the Museum.

Cambridge, Mass.,
September 24, 1890.

APR 11 1967

THE ATLATL OR SPEAR-THROWER USED BY THE ANCIENT MEXICANS.

My interest in the spear-thrower *per se* was first aroused by the perusal of Prof. Otis T. Mason's important monograph "On the Throwing-sticks in the National Museum," published in Part II of Smithsonian Report for 1884. Dr. Max Uhle's valuable contribution on the spear-throwers used by American tribes[1] directed my attention to the existence of the ancient Mexican atlatl, and thus gave the direct incentive to an investigation, begun in October, 1887, the results of which I now offer as a sequence to the above publications.[2]

As will be seen, the statements about the atlatl made by the best known modern authorities on Ancient Mexico, are scarcely of a nature to encourage research with any prospect of success. Thus Dr. E. B. Tylor (Primitive Culture, 1873), after making the interesting observation that "the Aztec civilisation is the highest known to have used the spear-thrower, in reality a weapon of savagery," proceeds to state that "we do not hear of the atlatl being in practical use at the Conquest, when it had apparently fallen into disuse." Other writers, as we shall see, have expressed a similar opinion. Mr. Ad. F. Bandelier[3] went so far as to appear to doubt its existence and habitual use in warfare though he states that Prof. F. W. Putnam had identified the Mexican atlatl with the throwing-stick of the Aleutians.

[1] Ueber die Wurfhölzer der Indianer Amerikas, Dr. Max Uhle. Mittheilungen der Anthrop. Gesellschaft. Wien, 1887.

[2] As Dr. Max Uhle in a communication dated Nov. 3, 1887, informed me that he had then discovered or identified a number of representations of atlatl in the Mexican and Maya codices contained in Kingsborough's work, it is to be hoped that this able ethnologist has continued to study the atlatl, and will impart before long the results of his labor.

[3] Art of War and Warfare of Ancient Mexicans. Tenth annual report of the Peabody Museum, Cambridge, 1877, page 105, Note 37.

Mr. H. H. Bancroft[1] says that, although "some writers mention a ballesta, a sort of cross-bow, to launch the javelin, he had not found any description of its form or the manner of using it." This writer adds however: "it may be that this ballesta was a somewhat similar implement to that used by the Aleutians and Isthmians." Señor Orozco y Berra, the learned Mexican historian, frankly confessed that the structure of the atlatl was unknown to him.[2] His compatriot, Señor Alfredo Chavero, recognized, however, its use and even made an inference as to its construction, based on its known representations in the Vatican and Aubin Codices.[3] Professor Valentini[4] recognizes the existence of the atlatl and its use by the Indians in Mexico, but comments how surprising it is "that no express notice of it was taken by the chroniclers and especially that Cortes and Bernal Diaz, two experts in Mexican warfare and careful reporters, passed in absolute silence over the peculiar contrivance which they needs must have seen in the hands of their opponents and which, for various reasons, could not have failed to attract their notice."

After reading these statements I was surprised to find that there existed in the old Spanish Chronicles, a number of scattered notices establishing, beyond a doubt, the general use and important rôle performed by the atlatl at the time of the Conquest. The next step was to refer to several well-known pictures of the atlatl, contained in the Vatican, Telleriano-Remensis and Aubin Codices, authenticated as such by contemporary texts. Familiarity with these enabled me to recognize an unexpectedly large number of representations of the atlatl in other Codices and, what is more important, to identify it as the hitherto unknown weapon held by the sculptured warriors on the so-called Sacrificial Stone of Mexico and on bas-reliefs of Chichen-Itza, Yucatan. These carved representations, and the colored pictures in the Codices are so minutely and carefully executed and so clearly reveal both structure and method of use that they fully compensate for lack of detail concerning these points in the Spanish Chronicles. Indirect evidence and finally the Nahuatl text of Sahagun's invaluable Manuscript Historia, which I had occasion to study in Florence this winter,

[1] Native Races, vol. II, p. 410.
[2] Historia Antigua de Mexico, vol. I, p. 240.
[3] Mexico á través de los Siglos, p. 615.
[4] Two Mexican Chalchihuites. Proceedings of the Am. Antiquarian Society, 1881.

contributed to reveal a complete view of the curious evolution of the spear-thrower in Ancient Mexico.

We seem to see the native huntsman using it, in its simple, primitive form, to launch the harpoon at the fish and aquatic fowl of his native lagoons or hurl it in savage warfare at his enemy. In numerous pictures we find it exhibiting elaborate decorations, curious conventional forms, and serving as a mark of chieftainship and priestly rank. We finally recognize ceremonial forms of the atlatl in the hands of Aztec deities and in the precious emblem borne aloft in certain religious processions. The following data prove, beyond a doubt, that the atlatl was in general use, in each of these forms, at the time of the Conquest, although it soon fell into disuse and became extinct.

To the Aztec mind the origin of the atlatl and spear was by no means shrouded in obscurity, but was accounted for by several myths and traditions. One of these is preserved in a Manuscript History written in Mexico in 1576.[1] The Nahuatl text relates that the Aztecs, during their migration, in the year 5 Cane, reached a locality which they subsequently named Atlacuihuayan in commemoration of the fact that whilst there, they invented the atlatl and yaomitl = war-arrow, or spear. The name Atlacuihuayan in this manuscript is ideographically expressed by the picture of an atlatl on which a dart rests. (See Pl. III, 6.) In the "Mexican Hieroglyphic Manuscript from the Boturini collection[2] the same locality is designated by the rebus of a hand holding an atlatl. (See Pl. III, 26.)

Notwithstanding these seeming corroborations, there are strong reasons to believe that the localized invention of the atlatl had absolutely nothing to do with the origin of the name Atlacuihuayan. Indeed, the probability seems to be that this part of the tradition took its rise from the circumstance that an atlatl was occasionally painted as the hieroglyph of the town. But it could have been thus employed for its phonetic elements only. In other MSS.[3] we find the same name equally well expressed by a rebus consist-

[1] This MS. has been published in facsimile by J. Desportes, Paris. For further mention of this tradition see Duran, Historia, I, p. 31; Orozco y Berra, *op. cit.* I, 240; A. Chavero, *op. cit.* and others.

[2] Mexican Antiquities, Lord Kingsborough, vol. I.

[3] See Orozco y Berra, Atlas to Historia and Antonio Peñafiel: Nombres Geograficos de Mexico, Mexico, 1885.

ing of a jug from which water is overflowing.[1] On the whole, however, the above tradition merits respectful consideration and is of unusual importance and interest when compared with further testimony yielded by the pictorial accounts of the Aztec migration. In each of the MSS. mentioned above and in Padre Duran's Atlas the Aztecs are pictured as starting on their migration armed with bows and arrows only. Now, our tradition merely makes the plausible statement that when the Aztecs reached the Valley of Mexico and were forced to seek their food in the lagoons which abounded in fish and fowl, they naturally adopted the most practical instrument for aquatic chase. This was the atlatl and its inseparable adjunct the harpoon or spear.

A second tradition recorded by Padre Sahagun[2] relates that it was Opochtli — a simple mortal though called a god, who had invented the harpoon and taught its use to the Mexicans, as well as that of oars, fishing-nets and bird snares. His inventing the harpoon seems to explain why Opochtli was also Amimitl, for this name literally means: water-arrows = harpoons.

But the use of the spear in warfare was supposed to have been taught by Huitzilopochtli, the hero war-god. A well-known myth, to which I will revert, relates that he had come to life ready for warfare, "armed with a spear, an atlatl and a shield." A tradition, as recorded by Torquemada,[3] tells that it was this Indian Mars who incited the Mexicans to battle and had given them the weapons with which they fought, namely, the long spears made of cane stalks and tipped with obsidian, which they threw with a certain implement called "atlatl." It is noteworthy that, in the above

[1] This rebus has been analyzed as meaning "the place whence water is fetched." That the first syllable of Atlacuihuayan is ātl, water, is proven by the fact that, in Carochi's Grammar, this name is printed with an accent on the first syllable.

This would connect Atlacuihuayan with the verb "atlacui" = to draw water from a well; and with the nouns, atlacuiuani = water-bucket, and atlacuic = water-carrier.

In the invaluable old map of the City of Mexico, recently discovered in the University Library at Upsala, Sweden, I had occasion to note that the partially corrupted name Atlacubaya, written in Spanish text, is accompanied by a jug with overflowing water.

Buschmann (Uber Aztekische Ortsnamen, p. 25), gives the original name of Tacubaya as Atlauhcoloayan and refers to Bezerra Tauco as his authority. This name would signify "place of the winding brook." Topographical testimony seems to corroborate this etymology—for in the above map the town, represented as a group of houses and a steepled church, is painted as bounded on three sides by a winding stream which describes several unusually deep curves during its comparatively brief course.

[2] Historia de las cosas de Nueva España, lib. I, cap. XVII.

[3] Monarquia Indiana, Madrid, 1723.

traditions, absolutely no mention is made of the *maquauitl* or obsidian sword, or of the lance — nor are there any traditional accounts of their origin. Although these were in general use we are told by the high authority Herrera[1] that "the spear was the weapon most dreaded by the Spaniards." Its use and deadly effect have, in fact, been recorded in at least a few words by each of the old Spanish chroniclers.

Cortes relates how the inhabitants of a certain village attacked his soldiers "*throwing* many spears and arrows at them."[2]

Bernal Diaz mentions how, in the Spaniards' first battle with the Tlaxcallans, the ground was strewn with innumerable spears (varas) all with two barbs. "These," he adds, "could traverse any sort of armor and against them there were no means of protection."[3]

The brave old soldier records later (p. 46), how "the Tlaxcallans had thrown, *with throwers*, spears armed with one or two barbs" and in describing what he saw in Monteçuma's arsenal (p. 67), he again mentions: "spears, some with two and some with one point, and *their throwers*."

The Anonymous Conqueror[4] describes "spears thrown by a cross-bow *made of another piece of wood*. These spears were tipped with obsidian or with very sharp, strong fish bones. Some had three points and inflicted three wounds at once."

Ixtlilxochitl terms the spear, lanza arrojadiça, whereas Padre Duran[5] names it fisga or vara arrojadiça, literally "spear which was thrown" and characterizes it as "a very dangerous weapon, because, on account of its barbed hooks like those of a harpoon, it cannot be removed without making a large wound — unless it can be taken out at the opposite side."

Torquemada[6] states that a battle was usually opened by a volley of "spears *thrown* by means of a shuttle (jugadera), with great strength and velocity." *Mendieta*[7] makes the same statement in the same words.

Padre Sahagun[8] distinctly mentions that "the instrument with which spears were thrown was called *atlatl*."

[1] Historia General, Madrid, 1601, vol. I, p. 185.
[2] Historia de Nueva España, ed. Lorenzana, p. 51.
[3] Historia Verdadera de la Conquista, Madrid, 1632, p. 45.
[4] Ed. Icazbalceta, Mexico, 1858, p. 372.
[5] Historia de las Indias, Mexico, 1867 and 1880, vol. I, p. 121.
[6] *Op. cit.*, II, 539.
[7] Historia Ecclesiastica, Mexico, 1870, p.
[8] Historia de Nueva España, lib. II, cap. 29.

Fray Diego de Landa[1] tells us that the inhabitants of Yucatan had learned the use of weapons and the art of warfare from the Mexicans and that they had "a certain way of throwing spears by means of a stick, about 3 fingers thick and 6 *palmos* (about 18 inches) long, which stick was perforated at one-third of its length and with it and certain cords, the Indians threw with strength and certain aim."

Finally Tezozomoc[2] in his graphic description of the military drill performed by the Tlatelulcan warriors preparatory to their rebellion against Mexican supremacy, specifies their use of "sticks hardened by fire" (varas tostadas) called *tlatzontectli*, and spears called *minacachalli*. The latter had three points, he says, and "were thrown by means of a stick nine inches long, called atlatl, which atlatl was the *thrower* = arrojadero, of the minacachalli."

Now Sahagun (*op.* et *loc. cit.*) distinctly states that the harpoon for killing fish invented by Opochtli was named minacachalli. It is interesting therefore to actually find Tezozomoc recording how the Tlatilulcans were ordered out in canoes, by their chief, to practise throwing their minacachalli at flying ducks preparatory to using them, in battle against their enemy. This double use for the harpoon or spear satisfactorily explains the somewhat puzzling use, recorded by Clavigero and after him by other writers[3] of a cord attached to the spear and fastened to the arm of the individual using it. Clavigero, who is by no means a first rate authority, but has enjoyed popularity, explains that the cord was used for pulling the spear out after inflicting a wound. Now in warfare a firm bond connecting a man with his wounded and infuriated foe would have obvious inconveniences, especially if the barbed spears were as difficult to remove as we have been told they were. On the other hand, in aquatic chase such a cord would fulfil the important and useful purpose of securing prey and preventing the loss of the harpoon. I am therefore inclined to agree with Señor Orozco y Berra who expressed his belief (*op.* et *loc. cit.*) that Clavigero was unconsciously referring to harpoons as used for killing fish and not as used in warfare, in the above passage which lacks, moreover, the support of other evidence.

[1] Relacion de las cosas de Yucatan, ed. Brasseur de Bourbourg, p. 46.

[2] Cronica Mexicana, Mexico, 1878, p. 376.

[3] Historia Antigua, ed. Mora, Mexico, 1844, p. 217. *cf.* Brasseur de Bourbourg, Hist. Nat. Civ., III, p. 594; H. H. Bancroft, Native Races, II, p. 410; A. Bandelier, *op. cit.* p. 105; and others.

Now the use by the ancient Mexican of an *amiento* or strap for the purpose of throwing the spear has been stated, in contradiction to the mass of evidence, by a few old Spanish writers whose words have been quoted by some modern authorities. In Molina's dictionary we actually find the word *atlatl* translated by *amiento*, one of several Spanish words for *strap*. Only a prolonged search has enabled me to find the explanation of the strikingly inappropriate use of the term "strap" for a wooden throwing-stick. The explanation is as follows: and though it may seem, as I hope it will, very simple and evident, I can affirm that it was most difficult and perplexing to find.

I have already stated that Bernal Diaz mentioned spears which the Indians "threw with throwers." He uses the expression *tirar con tiraderas* and it is evident that by *tiradera* he merely meant to express the verbal noun of the verb *tirar* which he used immediately before, to describe the action. He employed the expression *tirar con tiradera* in precisely the same way and with the same signification as Torquemada and Tezozomoc respectively wrote, *jugar con jugadera* and *arrojar . . . con arrojadera*. Each of these old Spanish contemporaries thus described in synonymous verbs and verbal nouns the action, to throw (a spear) with a thrower.

Now the word *jugadera*, from its original meaning of "thrower" has come to be the specific name for a certain kind of "thrower:" a shuttle. The word *tiradera*, though it simply meant "thrower" and was employed in this sense, as will be shown further on, by others than Bernal Diaz, was also used by some old writers for the thing thrown, namely, the spear, sometimes termed "vara arrojadiça." *Tiradera*, however, also meant *strap* and was therefore synonymous with *amiento*, the more general term for strap, though its application is usually limited to that strap used to fasten the helmet under the chin.

The chronicler and compiler *Herrera*, who, I believe, never left Spain, but is known to have consulted the MS. History of the Conquest written by Bernal Diaz, evidently came across the word *tiradera* and, having no practical knowledge of Mexican spears and their throwers, inferred that a *tiradera* was an *amiento*. And thus we find him recording[1] that the same Tlaxcallans whom Bernal Diaz had seen, "carried spears with *amientos* which they threw with such force as to cleave a door."

[1] *Op. cit.* Dec. II., lib. VI, cap. VI.

Having once been admitted and employed in connection with Mexican spears, the word *amiento*, the false substitute for *tiradera*, asserted itself and with the recognized vitality and success of errors found its way into a series of books. But its falsity and absolute inappropriateness are often evident. Just see, for instance, how the writer of the Italian text to the Vatican Codex[1] retains this Spanish word and, in describing the picture of a warrior on Pl. LXXXI, says: "that which is held in the right hand is an *amiento* [*strap!*] *made of wood*, with which they throw a spear with great force." The English translator of the same text[2] rather cleverly translated this as *a kind of wooden sling*. On referring to the picture we find a substantial, well-drawn atlatl in the warrior's hand (Pl. III, 16).

Again notice how Padre Duran's use of the word is proven to be wrong by his own illustration. He relates that "a certain image . . . held, with a threatening gesture, a spear which was set in an amiento." Examining the picture of this image in his Atlas we find the spear, not set into a strap but distinctly lying on an atlatl of well-known form, made of a recurved piece of wood provided with lateral finger-pegs.

The Aztec word atlatl or atlatli, as it is sometimes found written, is intimately connected with the verb tlaça = to aim, to throw or cast (Spanish: *tirar*), the frequentative of which is tlatlaça.

From this verb a whole series of words is formed:

tlatlaçaliztli = the act of throwing, etc.

tlatlaçalli
or tlatlaxtli } the object thrown.
tlatlaztli

tlatlaçani = the thrower.

Now we also find the verbs *atlauia* and *atlacopa* or *atlatica nitlamina*, meaning: to throw a dart with an atlatl.

Considering that the original use of the atlatl was in aquatic chase by the atlacatl or fishermen, whose name is a synthesis of *atl* = water and *tlacatl* = men, I venture the suggestion that the word atlatl may primarily have been a synthesis formed with the verbal noun tlatlaçani = thrower and âtl = water. This would give the word *atlatlaçani*, meaning "water-thrower," not an unfit name for

[1] Lord Kingsborough, Mexican Antiquities, vol. V.
[2] Lord Kingsborough, Mexican Antiquities, vol. VI.

the harpoon-thrower of the water-men. However, this is, as I said, a suggestion only, and I refer the question of the exact derivation of "atlatl" to the consideration of Mexican philologists.

Let us now review the scattered testimony I have brought together from the writings of the highest authorities on Ancient Mexico. It proves beyond a doubt, that the spear, thrown by a wooden atlatl, was not only in general use at the time of the Conquest, but was acknowledged by the Spaniards to have been the most effectual weapon of the Aztecs.

These, it seems, had only adopted it and acquired proficiency in its use from the time they took up their abode in the Valley of Mexico where they found themselves forced to resort to aquatic chase. Up to that time their chief arm had been the bow and arrow just as, at the time of the Conquest, it was that of the Chichimecs, of the Mountain Indians and of those tribes that dwelt inland and hunted chiefly birds and small game.[1]

Doubtless the people inhabiting the coast regions originally used the harpoon for fishing and occasionally in savage warfare, just as the Aztecs did. But this tribe of fierce warriors and conquerors seems to have been the first to create a purely military and a ceremonial form of atlatl.

What the Mexican spear-thrower was like when it had reached its utmost development can best be learnt by examination of its numerous representations in sculpture and in the Codices, the majority of which are contained in Lord Kingsborough's monumental work, for the three specimens of genuine Ancient Mexican atlatl preserved respectively in Rome, Berlin and London, and to which I shall refer more particularly, are comparatively simple and incomplete.

A first glance at the strange and complex figures on Plates II and III may somewhat nonplus the beholder. When he observes their variety and actually finds that there are no two specimens exactly alike, even among many taken from the same Codex, he may well be tempted to inquire: how can one determine that these are all atlatl? It is a fortunate circumstance that, when a native

[1] "The Chichimecs . . . . were always armed with bow and arrow so as to be always ready to hunt," Sah., *op. cit.* lib. X, cap. XXIX; *cf.* Bernal Diaz, *op. cit.* p. 74. The bow and arrow is also recorded as the principal arm of the inhabitants of Michoacan, Orozco y Berra, *op. cit.* II, pp. 589, 594.

artist pictured a warrior or deity with an atlatl in one hand, he generally painted one or more spears, a shield and a banner in the other. These together constituted the complete accoutrement of one grade of war-chiefs. Now it sometimes happened that he omitted one or the other of these; but, as will be seen by referring to my index to Plates II and III it is an exceptional case when an atlatl is not accompanied by some other part of military armor.

In cases of doubtful looking atlatl the presence of the spear, as an accessory, may be adopted as a convincing proof of a correct identification. On the other hand, the absence of the spear does not constitute disproof. Indeed had I excluded all atlatl pictured without accessory spears, from my illustrations, I should have been obliged, strange to say, to reject some of the most important representations of atlatl we have; important because of the few whose authenticity is established by the contemporary texts of the Codices containing them.

On Plate 32 of the Vatican Codex A a personage is painted with what the text terms a "blue atlatl" in his right hand (Pl. III, 1). His left hand is empty and he is not in strictly military costume.

On Plates 81 and 82 of the same Codex, war-chiefs are pictured holding an atlatl (Pl. III, 16 and 17) in one hand and a shield and banner only in the other. I have already quoted the text describing one of these atlatl as "a kind of wooden sling." These cases prove that a genuine picture of an atlatl is not invariably accompanied by a spear or even by other parts of military armor.

Let us examine the few other atlatl identified as such by contemporary texts.

Pl. III, 2, from the Vatican Codex A, is described as "a certain sort of arm as a bow;" 22, from the same source is termed "a certain weapon which they name Xiuatlatli (literally "blue atlatl"); 10 is merely named "Xiuhatlatli" in the text to the Telleriano-Remensis Codex. Leaving these "described and labelled" specimens let us pass on to those for whose identification, with one or two exceptions, I alone am responsible.

I have endeavored to classify my collection of atlatl and divided them into two classes.

Class I answers to Fray Diego de Landa's description being usually provided with one or more finger holes at about one-third of its length. It includes:

1, atlatl with a single large circular finger hole. *Type specimens*, Pl. II, 1 and 20.

1*a*, ? atlatl with a double hole. *Unique specimen*, Pl. II, 9.

2, atlatl with two small holes in the body of the implement. *Type specimens*, Pl. I, 4, and Pl. II, 15.

2*a* ?, atlatl with three holes in the body of the implement. *Unique specimen*, Pl. II, 16.

3, atlatl with two lateral rings attached externally. *Type specimens*, Pl. II, 6, and 3, *b*; also the three existing specimens of atlatl.

Class II is distinguished by being provided with lateral finger pegs placed exactly opposite to each other instead of holes or rings. *Type specimens*, Pl. III, 26, 30–33; *cf.* 16 and 17.

Let us take a rapid survey of Class I.

1. In the hands of sculptured warriors, Pl. I, 1 to 5, 6*b*.

2. In groups of armor also carved in bas-relief, Pl. II, 3*a*, 3*b*, 6, also Pl. I, 6*a*.

3. In the Codices, Pl. II, 1, 2, 4, 5, 7, 20–27. In this series we can first study the atlatl by itself (Pl. II, 3*a*, 3*b*; I, 6 and 6*a*), then learn by ocular demonstration how the index and middle fingers were inserted into the hole or holes whilst the other fingers and thumb grasped the handle.

We have front views, Pl. I, 2, 3, 6*b*; II, 14, 15, 16, and back views, Pl. I, 5; II, 1, 2, 4, 5, 7–12, 17, of the hand and inserted fingers holding the atlatl ready for use.

We see it also simply grasped by its handle, Pl. I, 4; II, 21–27, and finally have its instantaneous though distorted picture in the very act of launching the spear, Pl. II, 18, 19 and 20.

We perceive that it sometimes is ornamented with a flat covering of applied feather-work, Pl. I, 1–6*b*; II, 2, 3*b*, 7, 10, 11, 12, 14, 15, 22–25, 27, covered with tiger skin, Pl. II, 4 and 5, carved or painted with transverse bars, Pl. II, 1, 21, 26, adorned with tufts of feathers, Pl. II, 21, 23, 24 and 27, flexible tassel-like appendages, Pl. II, 7, 16, or long streamers, Pl. II, 9, 12. We observe that the atlatl itself is generally painted blue while the decoration is of many colors.

Having learned all these interesting details from the old manuscripts, let us leave them for a moment and study the three existing specimens of Ancient Mexican atlatl which have come under my notice. The finest of these is in the Museo Kircheriana in Rome where I had the privilege of examining it closely in May,

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1890. The British Museum specimen ranks next in excellency of workmanship and is moreover the most complete. It still retains one of the two finger rings made of shell, that were originally attached to its handle. The third specimen is at the Museum für Völkerkunde in Berlin, where I saw it in 1888. The three specimens consist alike of a long straight piece of a very hard and fine-grained wood (zapote?). Each is provided with a central "spear shaft groove" ending with a "hook or spur" and each must have originally had lateral finger rings, attached like those of the London specimen. I have much pleasure in acknowledging the courtesy of Signor Cav. Pigorini, the director of the Kircheriana Museum, to whom I am also indebted for the following measurements of the atlatl in the Mexican collection:

Total length	558 mm.
Maximum width (upper end) .	37 mm.
Minimum " lower " .	19 mm.
Length of groove . . .	492 mm.
Maximum width of groove . .	6 mm.
Minimum " " " . .	4 mm.

This specimen is ornamented with very finely and skilfully executed carvings, in low relief, of human figures and symbols. These cover both sides of the atlatl and extend from its upper end to the end of the groove. The *finish* and *execution* of the carving though in lower relief recalls that we are accustomed to see on Chinese camphor-wood boxes. The outlines of the figures strikingly resemble those of the drawings in the Vienna Codex. Two standing and four seated human figures are carved on the back of this atlatl. On the front, on both sides of the groove, besides human figures, I counted one representation of a serpent and no less than five finely carved serpents' heads. (It is an interesting fact and one to which I will revert, that the serpent symbol is carved on each of the three specimens I have mentioned.) On the space between the base of the groove and the upper end of the atlatl a larger spread figure of a warrior (Huitzilopochtli?) is carved. His head is so curiously placed that it is a projection from under his chin that forms the hook or spur for launching the spear. In the right hand he holds what looks like a double-barbed point of a harpoon; in the left, a bundle of light darts across which a serpent's head is carved.

The whole surface of the carving is covered with a fine layer of purest gold in fairly good preservation.

The British Museum specimen also exhibits traces of gilding. I have come across the records of two throwers (*tiraderas!*) of gold which were sent to Charles V by Cortes.[1] The second one, described as "a thrower of gold in the shape of a bishop's crosier" (una tiradera de oro á manera de baculo), was of massive gold and its weight is given as 368 *pesos de oro*, the exact equivalent of which in our weights, I have not been able to determine.

Let us cast a glance at the hitherto unrecognized representations of atlatl on the bas-reliefs of Chichen-Itza, Yucatan, and on the so-called Sacrificial Stone in the city of Mexico.

In his publication on the latter monument (Anales del Museo Nacional, tomo I, page 31) Señor Orazco y Berra wrote: "The weapons held by the prisoners . . . are two arrows held with their points upwards. The object offered with the right hand does not represent "flowers," as Humboldt and Nebel believed, but is a weapon, as Ramirez determined. It is the sacrificial knife, and is the symbol for sacrifice. It is made of silex = tecpatl, and not of obsidian = itztli, and is characterized by being mounted on a handle of wood by which it was held so as to protect the hand using it. It had a guard (tope), the purpose of which was to prevent it from penetrating beyond a certain depth."

Señor Jesus Sanchez (Anales del Museo Nacional, tomo III, page 133) likewise describes the object held as "a certain kind of stone knife furnished with a guard." Reference to Pl. I, fig. 6*b*, will convince the reader that this weapon is an atlatl, the complement to the two spears held in the left hand. The same form of atlatl will also be recognized in fig. 6*a* below the shield held by the warrior, besides two spears and a banner = macpanitl.

Stephens (Incidents of Travel in Yucatan, vol. II, page 309) was the first to note the general resemblance between the sculptured figures on the "Sacrificial Stone" and on the walls of the chamber at Chichen-Itza. It is strange that this careful observer should have overlooked the weapon represented in the right hand of the Chichen-Itza warrior, and described these warriors as "carrying a bundle of spears or a quiver of arrows" only.

M. Désiré Charnay (Les Anciennes Villes du Nouveau Monde, page 308) made a special note of the truly remarkable resemblance between the carvings of both monuments and went so far as to state

[1] Coleccion de Documentos Inéditos del Archivo de Indias, tomo 12, pp. 349 and 352.

that the personages on each carried identical weapons. But M. Charnay described the weapon held in the right hand as a "sacred knife," and identified it with the ceremonial knife made of painted wood, mentioned by Sahagun (lib. II, cap. 37). The fact is that the resemblance noted by Stephens and Charnay, is a more significant one than either supposed. For both of these monuments, widely separated though they are, exhibit atlatl of precisely the same shape, proportion and decoration, represented as held in the same manner.

This similarity, which may be partially studied by means of Pl. I, is all the more remarkable when contrasted with the extreme variety and diversity of forms of atlatl observable in even a single Codex. And the likeness of the Chichen-Itza and Mexican sculptured atlatl is all the more significant as it coincides with other facts which I will present, with my conclusions based thereupon, in a future communication.

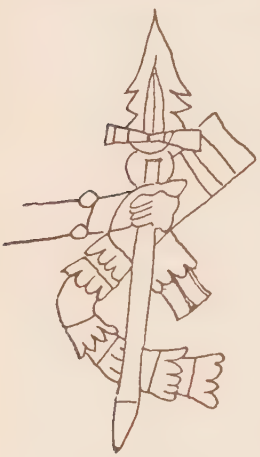

FIG. 1.
From Vatican Codex A, 70.

Visitors to the National Museum at Washington and the Peabody Museum of American Archæology and Ethnology at Cambridge can have the privilege of becoming acquainted with these extremely interesting bas-reliefs by means of their admirable casts made by M. Désiré Charnay. The four nearly life-sized warriors sculptured on the two stone posts of a doorway in the building known as the "Tennis Court," in Chichen-Itza, are of special importance. They show us that besides several long light darts, and an atlatl, a warrior also carried a short heavy spear provided with a large barb, single or double. This can be seen projecting from the peculiar quivers over the left arms of figures 1 and 2, Pl. I. A quiver recalling that of fig. 1 and a large spear with double barb are represented on page 70 of Vatican Codex A. A warrior holds these in one hand (see fig. 1) and a peculiar atlatl in the other (Pl. II, 8). I was struck by the resemblance of this double barb to the one in the hand of the personage carved on the atlatl preserved in Rome. The fact that he holds such a barbed spear point and also

a bundle of light darts, leads to the inference that the atlatl he is carved on was intended to launch both missiles. It is interesting to find the Chichen-Itza warriors similarly armed.[1]

Returning now to the pictures of atlatl taken from the Codices, we find that the existence of a spear-shaft groove and hook could scarcely be inferred from the front views (Pl. II, 14, 15, 16), of atlatl of the same type as the sculptured ones.

Indeed the only representations of atlatl I know of, in which the spear-shaft groove and hook are distinctly visible, are those carved on the bas-reliefs of Chichen-Itza (Pl. I, 2, 3 and 4). But as soon as the artist began to make a drawing of the atlatl held ready for use or actually launching the spear he was forcibly reminded of the important role performed by the hook. In endeavoring to reproduce this he seems to have sometimes exaggerated its proportionate size. At all events, he drew it *en profile* though retaining the back view of the hand and of the finger holes and handle of the atlatl (Pl. II, 2,13, 17-20). This distorted drawing was evidently adopted as one of the conventional ways of picturing an atlatl, and it will be well to bear the possibility of exaggeration and distortion in mind whilst studying all pictures in which the hook is visible. It is, of course, quite impossible for us to judge of the fidelity with which the artist may have drawn the proportions of the hook. The existing specimens and the carved reproductions exhibit a small hook not rising above the level of the sides of the groove. On the other hand, we shall find a prominent hook pictured in a variety of forms and dimensions and also learn that the large recurvation of one ceremonial form of atlatl caused this to be compared, by the Spaniards, to a bishop's crosier.

In figs. 2, 13, 17, 18 and 20, Pl. II, we find the hook or spur consisting of a square projection. In fig. 19 this is modified to a point.

Figs. 28, 29, 31-34, Pl. II (from the Maya MS. of the Dresden Royal Library), fig. 37 (from the Troano MS.), and 7, 10, 12 and 13, Pl. III (from various Mexican MSS.), exhibit a curious recurvation vaguely recalling the fiddle-head ornament of the Ungava throwing stick described by Prof. Otis T. Mason.

[1] The curved weapon in the left hand of fig. 1 is likewise represented as held by the personage sculptured on the inner face of the left door post and also by those on columns in the Castillo de Chichen-Itza. Is it an atlatl like that engraved on the Humboldt celt (Pl. II, 39)? or a sort of a club?

Fig. 34 is unique and of special note on account of thongs represented as passed through and hanging from the atlatl. This specimen is from the Dresden Maya MS. and I refer again to Fray Diego de Landa's statement that the natives of Yucatan used "certain cords" with their spear-throwers (p. 10). Another unicum, provided with a finger-ring (Pl. II, 39), is that engraved on the Humboldt celt and identified by Prof. Valentini.[1]

Figs. 35, 36, 40, Pl. II (from the Dresden MS.), fig. 38 (from the Troano), figs. 1, 2, 4 and 5, Pl. III, already referred to, terminate in a more or less sharply recurved hook.

Passing on to the atlatl of Class II, with characteristic finger-pegs, we find the same square projections as distortedly drawn, Pl. III, 26, and the sharp hooks, Pl. III, 16, 17, also 6, we have already noticed in Class I.

Now that we have duly studied the structure and practical side of the atlatl, let us investigate the interesting symbolic and ceremonial forms under which it reappears as part of the paraphernalia of some of the principal Aztec deities.

HUITZILOPOCHTLI.

In the vignettes illustrating the account of this hero god's miraculous birth, etc., contained in the Laurentiana MS. of Sahagun's Historia (lib. III, cap. I), we find him depicted with a shield, one or more spears and an atlatl. This is curiously carved in the semblance of a serpent and is provided with lateral finger-pegs (Pl. III, 32, 33). The Nahuatl text relates that it was blue and was named Xiuatlatl = blue, or turquoise, atlatl. To find these pictures of Huitzilopochtli with an authenticated and unmistakable atlatl of a blue color, in the shape of a snake, is a fact of no ordinary importance, for it affords a clew to the meaning of the Nahuatl names of his weapons recorded elsewhere in the same MS. It is several times repeated (*op. cit.* lib. I, cap. 1, and Historia de la Conquista, cap. 38) that these consisted of a *xiuhcoatl* and a *mamalhuaztli*. Literally translated, *xiuhcoatl* means: blue or (turquoise) serpent. Mamalhuaztli is, in my opinion, the verbal noun of the verb *mamali* = to cleave, to split, to force one's self into a crowd of people, and means literally: "the splitter, the cleaver," no unfit name for a spear.[2]

[1] Two Mexican Chalchihuites. Proceedings of the Am. Ant. Soc. April 27, 1881.

[2] I am aware that the name *mamalhuaztli* is generally applied, by modern writers, to "the stick used for making fire," although it is not to be found with this meaning in

Now Huitzilopochtli was not an ideal creation, an abstract deity, but a distinguished war-chief, about whose birth and life a halo of myth and romance had been posthumously thrown. He was a real personage, "a vassal, a mortal—also a mighty magician and a leader of battles." The weapons he had used were actually preserved as relics and it was believed that some of the power with which they had once been wielded had passed into them. For it is recorded as an historical fact, that during the final terrible struggle of the Mexicans, in a time of direst distress, the last of Aztec hero-chiefs, Quauhtemotzin, ordered the bravest of his warriors to take Huitzilopochtli's relics, the "blue serpent" and "the cleaver" and venture boldly into the ranks of the Spaniards, for he who bore them was invulnerable and could not be vanquished (Sahagun's Hist. Conq. l. XII, cap. 38).

Whilst it has been remarked before that the "xiuhcoatl" was the special symbol of Huitzilopochtli, it has not as yet been recognized that this "blue serpent" *was a name for his atlatl of symbolic form*. It is not difficult to imagine why, in the first case, the serpent was selected as an appropriate symbol for the swift thrower of a fatal dart. It is an interesting fact, moreover, that the serpent symbol is prominently carved on each of the existing specimens of Mexican atlatl. It is still more interesting, however, to ascertain, through authentic records, that atlatl, made in the shape of a serpent and inlaid with turquoises, were in real ceremonial use at the time of the Conquest.

It is a well-known fact that, soon after the landing of Cortes, Montezuma sent him by messengers, as presents, priestly ceremonial vestments and insignia, such as were worn in religious solemnities by the high priests or living representatives of Aztec gods.[1] Among the insignia of Quetzalcoatl, the title, in this case,

Molina's or M. Rémi Siméon's dictionaries. In these it is only recorded as the name given by the Ancient Mexicans to the constellation Gemini. In the Nahuatl text of Sahagun's MS., the stick used for making fire is termed "tlequauitl" literally=fire (tletl), stick (quauitl), (*op cit.* lib. VII, cap. IX). But the Spanish text describes this as being "long and thin, *like an arrow or dart.*" We know that sticks with points hardened by fire were thrown by atlatl, and Sahagun's MS. contains numerous illustrations of such (Pl. III, 23). Tezozomoc terms these "varas tostadas" or tlatzontectli." He mentions, however, a "*vara tostada with three points*" (*op. cit.* 392). As Sahagun informs us that all the cane-stalks *otlatl* employed as shafts for arrows or spears were first subjected to a process of hardening by fire, it would seem as though the term "vara tostada" was as appropriate for shafts simply sharpened to a point as for those tipped with obsidian or fish-bone.

[1] For the reasons why these insignia were sent to Cortes, see p. 35, my essay, "Standard or Head dress?" Peabody Museum Papers, Vol. I, No. 1, 1888.

of the high priest of Huitzilopochtli, Sahagun records in the Spanish text (lib. XII, cap. IV) : "a sceptre like a bishop's crosier, all inlaid with mosaic composed of turquoises; the upper curve consisted of a serpent's head bent or twisted over." Another "crosier like the above" is enumerated also with the vestments of Tlalocantecuhtli; a third "crozier inlaid with turquoises in whose upper curve precious stones or prominent pearls were set" is described with the insignia of the god Quetzalcoatl."

The Nahuatl text of the Laurentiana MS. of Sahagun's Historia simply terms the first crosier a "*xioatlatl* (blue or turquoise atlatl) made entirely of fine turquoises, of the serpent's-head form = with serpent's head;" the second crosier is termed a "*coatopil* = serpent staff, worked in mosaic," and the third an *heca xonecuilli* of bent or curved wood, inlaid with stars formed of white chalchilmites." Many of these presents were forwarded by Cortes to Charles V in July, 1519, and the descriptive inventory sent with them has, fortunately, preserved many interesting details that complete our knowledge of the modes of structure and ornamentation of the atlatl. It shows us also that two atlatl went to Spain as "sceptres," and that each was accompanied by four spears or "harpoons" of equal elaborateness. It seems probable that the following entry and description were those of Tlalocantecuhtli's coatopilli or serpent staff:

"A sceptre, inlaid with scarlet precious stones, made like a serpent with its head and teeth and eyes which look like mother-of-pearl. The handle is covered with painted leather and from it hang six small tufts of feathers."[1] Further on is the entry : "four harpoons with white obsidian points, fastened to shafts decorated with featherwork." It is a noteworthy fact that the *atlatl and spears together* constitute a single item in another part of the same Memoria: "idem. four harpoons, adorned with feathers, with points of stone tied on with gold thread *and a sceptre* inlaid with precious stones, with two rings of gold and the rest feather work." It is scarcely possible to identify this atlatl with one or the other of Montezuma's presents described above, although it must have been one of them. It is evidently this atlatl that Gomara[2] writes of as "a staff like a royal sceptre finished with two rings of gold that are garnished with pearls." His description of the harpoons is of special inter-

[1]Coleccion de documentos inéditos para la historia de España, Memoria, tom. I, p. 461.
[2]Histoire de Méxique, Anvers, 1554. *cf.* Clavigero, *op. cit.*, ed. Mora, p. 250.

est because he calls them "four *tridents* each with three points, ornamented with featherwork of many colors. The points are of 'berrueco' (bone?) and are tied on with gold thread."

Now we find that Cortes sent, as a curiosity and present to his Grace the Bishop of Burgos, "a something like a crosier inlaid with precious stones of many colours."[1] So it seems that the three "crosiers" were sent to Europe. It need not seem astonishing that Cortes and his followers did not recognize or record the true nature of these "crosiers." It must be borne in mind that when these were received as presents and forwarded the Spaniards had not yet acquired a knowledge of the weapons used in Aztec warfare. Then these atlatl of eccentric shape, costly materials and elaborate decoration were certainly intended to be more ornamental than useful. They were ceremonial and symbolic and were destined for use in religious rites by the high priests or living representatives of the Aztec deities or in the decking out of their images. Both Tezozomoc (*op. cit.*, p. 94) and Duran (*op. cit.*, II, 81) describe Huitzilopochtli's "idol in the great temple of Mexico" as holding "in the right hand *what resembled a bishop's crosier*, made in the shape of a serpent, all blue, with undulations — in the left a shield and four arrows or spears." In the great festival in honor of this hero-god held in the month Panquetzaliztli we are told by Sahagun that his high-priest, entitled Quetzalcoatl, bore his idol in solemn procession whilst another priest carried the image of Paynal. These were preceded by a "mace-bearer with a sceptre in the form of a monstrous serpent, all covered with mosaic composed of turquoises."[2]

It is but lately that I came across the most interesting pictures of serpent atlatl in a scarcely known, but very valuable and important Mexican MS., preserved at the Biblioteca Nazionale, Florence.

The first of these (Pl. III, 29) to which I will revert, distinctly exhibits the characteristic lateral finger rings of Class I.

The second is represented in the picture of a personage clad in the habiliments of Huitzilopochtli and (Pl. I, 7) carrying four spears, a shield and banner besides the atlatl.[3]

[1] Coleccion de documentos inéditos del Archivo de Indias, tomo 12, p. 324.

[2] *op. cit.* Appendix to Book II, also chap. 34, book II of Torquemada, *op. cit.*, II, 282, who confounds the symbolic serpent atlatl with the banner also carried in procession.

[3] This picture is of exceptional importance as it exhibits a head-dress with striking points of resemblance to the ancient Mexican feather head-dress preserved in Vienna and lends the strongest support to my view of the question. Readers of my essay on

The serpent-atlatl is not, however, exclusively represented with Huitzilopochtli.

XIUHTECUHTLI.

The splendid specimen with finger rings just mentioned, is painted in the hand of *Xiuhtecuhtli*, as the text declares and on folio 89 of the same manuscript we find the same god, with well-known attributes, holding a shorter serpent atlatl besides a shield, banner and four spears. In the Vatican Codex A (p. 56) he is represented with a blue atlatl (Pl. III, 4) and a strange bent serpent staff in his left hand. The latter resembles the serpent staff held by Quetzalcoatl in the Vatican Codex B (21) and accompanied by a harpoon recalling fig. 1. In Tezozomoc (455) a serpent staff "coatopilli" is mentioned among the insignia of Quetzalcoatl.

TEZCATLIPOCA.

We also find this god with serpent spear-throwers: in Sahagun's Laurentiana Manuscript (Pl. III, 30 and 31), in the Borgian Codex, p. 22 (Pl. III, 27), and in the Ramirez Codex (x, 17) (Pl. III, 28). In his explanatory text to the latter,[2] Señor Alfredo Chavero describes this as "the weapon in the form of a serpent, the *xiuhcoatl*" without, however, directly identifying it as an atlatl.

QUETZALCOATL.

Let us now examine another ceremonial form of atlatl, that which we invariably encounter in representations of the god Quetzalcoatl.

We have already found its description among Montecuma's presents to Cortes. The Spanish text terms it a "crosier inlaid with

this historical relic ("Head-dress or Standard?" Peabody Mus. Papers, I, 1888) may be interested in having their attention especially drawn to the following details and in comparing them with the illustrations of the Vienna head-dress contained in the above essay.

1. Note and compare superposed central elevation, its proportions and decoration with discs.

2. The symmetrical design on the second concentric band above the forehead. A comparison of the coloring of this illustration is also desirable; the ground of the central portion is *blue* (the discs are left uncolored) and it is surrounded by an *edge of scarlet*. (Observe that "the most striking feature of the Vienna head-dress is a broad blue band edged with scarlet," p. 36, *op. cit.*)

Starting from the band above the forehead the colors of the concentric bands are as follows: 1, red; 2, left uncolored with pattern; 3, blue; 4, red; 5, green.

A long fringe of Quetzal tail-feathers surmounts the whole.

[2]Appendix to Duran's Historia II, Mexico, 1880.

turquoises, in whose upper curve precious stones or prominent pearls were set." The Nahuatl text has informed us that it was "of bent or curved wood on which were stars, formed of white chalchilmites."

Sahagun (lib. I, cap. v) likewise describes the idol of this god as holding in his left hand a shield, in his right "a sceptre like a bishop's crosier; its top was bent like a bishop's crosier and it was profusely inlaid with mosaic. But it was not as long as a crosier and that part by which it was held looked like a sword-hilt."

Duran (II, 119) relates that this "resembled a sickle, was of wood and painted black, white and red. Near its handle hung a tassel of white and black leather." This authority also states that the idol "carried a shield," but Torquemada (*op. cit.*, p. 290) states that, besides this, it held "a finely decorated spear, very large, with a point of obsidian of the shape and size of the iron points to one of our lances."

Referring first to the pictures of Quetzalcoatl's weapon in Sahagun's MS. (Pl. III, 24 and 25) we recognize in it a recurved atlatl with finger pegs. Its drawing is evidently distorted; the artist represented, as we have already had occasion to observe in other cases, a side view of the curve and a front view of the handle and finger-pegs. At a first glance its proportions strike one as exaggerated, but not unfamiliar, and it is interesting to compare figures 14, 15, 18, 19, 20 and 21, Pl. III, with the spear-throwers 1, 2, 4, 5 and 16 of Pl. III, and 36, 37, 38 and 39 of Pl. II. Figures 14, 19 and 50 of Pl. III represent specimens with smooth outline and transverse bands of color which recall Duran's description of "wooden sickles painted." Sahagun's illustrations however and fig. 18, Pl. III, exhibit ornamentation and have, moreover, a series of small balls placed along the outer edge of the curve. But this was, it is evident, only a conventional method of expressing the fact that these atlatl were inlaid or studded with precious stones. For we find real bishops' crosiers represented in the identical extraordinary manner by native artists, soon after the Conquest, figs. 2 and 3, p. 26. From these pictures we learn the interesting fact that whilst the Spaniards likened this form of ceremonial atlatl to a bishop's crosier, the Mexican artist, on attempting to delineate a crosier, drew it as he would an atlatl. Therefore, it is quite evident that the resemblance was a very strong one.

Now, let us produce our crowning proofs that this strange "crosier" was a ceremonial atlatl. It is generally represented, as we

have seen, accompanied by one part of military armor, a shield. In Sahagun's MS., it is also accompanied, in one instance, by spears; but in the Aubin Codex (appendix to Duran's Atlas) Tezcatlipoca (III, 19) carries it with a shield, banner and *two spears* and in the MS. of the Biblioteca Nazionale it is pictured as held by the god of the chase, Mixcoatl, along with *two spears*, a shield, banner and provision bag (Pl. III, 14). In this MS. the text informs us that it was named *Mixcoatl xonoquitl*. As we have seen, Fray Sahagun, recorded the name as *heca xonecuilli* in the Laurentiana MS. of his Historia. Each of these names for the curved atlatl seems to be, in the first case, descriptive of its form.

The word "xonecuilli" or "xonoquitl" is, I should say, a syn-

FIG. 2.
Bishop Zumaraja, first bishop of Mexico. Telleriano-Remensis Codex, p. 30.

FIG. 3.
Archbishop Montufar. MS. History of Mexico, 1576.

thesis of the verbs *xotla* = to cut, to carve, to hew, or *xolochoa* = to bend or fold something, and *necuiloa* = to twist or bend something. It would, therefore, only mean "that which is curved, twisted or bent." Certain loaves of bread, made during the feast of the god Macuilxochitl, were also named "xonecuilli." We are told by Sahagun (I, 14) that "these were of the form of a stroke of falling lightning." Mr. Rémi Siméon, in a note to his admirable translation of Sahagun's Historia (p. 32), describes these as "loaves of the form of an S."

The fact that a stroke of lightning was symbolized by a certain form termed "xonecuilli," and that this was the name of a ceremonial form of atlatl illumines a whole series of obscure passages. Duran has recorded that Tlaloc's emblem "was of carved wood *shaped like a stroke of lightning*" (I, p. 306). He also re-

lates that Tlaloc's idol held in his right hand "*a stroke of lightning of wood*, painted purple." This was undulated, like a stroke of wavy lightning falling from the clouds to the ground (II, 136). Tezozomoc (434) and Orozco y Berra (III, 360) tell us that Tlaloc's staff was called *tlapetlaquauitl* or "staff casting out lightning."

To examine Tlaloc's emblems further would be to transgress beyond the limit of my subject. Suffice it, therefore, to have been confirmed in the knowledge that lightning and swift destruction were symbolized by a certain curved form, and that this form was that of a ceremonial atlatl.

It seems as though one could discern the line of thought that led the ancient Mexicans to associate lightning and (the closely allied) serpent symbolism with their military arm for throwing fatal missiles. They may have done so at first with the belief and hope of endowing their atlatl with the qualities they recognized in both destructive forces. It is easy to understand how, by gradual transition the forces themselves should come to be symbolized by the weapons and that these should become more and more emblematic and depart from their primitive form. This transition was taking place at the time of the Conquest and had reached its maximum in Quetzalcoatl's and Tlaloc's lightning-hurler and Huitzilopochtli's xiuhcoatl or turquoise serpent. But even in these ceremonial emblems the form and idea of the atlatl were far from being abandoned and were ever present. Nothing proves this more clearly than a figure of speech preserved by Padre Olmos.[1] From him we learn that, to express the idea that we might render by the phrase, "He smote the people," meaning a visitation of famine or pestilence, christianized Mexicans made use of an ancient metaphor and said, "He hurls (with) the *xiuhcoatl*, the *mamalhuaztli* upon them."

Let us now hastily review the atlatl represented with

TEZCATLIPOCA.

We have found him with the serpent-atlatl, Pl. III, 27, 28, 30 and 31, and with the lightning-atlatl, Pl. III, 18, 19.

Duran (II, 106) and Tezozomoc (109) give a valuable indication by telling us that, in each town, there were two different idols of Tezcatlipoca.

In the great temples of Texcoco and the city of Mexico one

[1] Grammaire de la langue Nahuatl, édition Rémi Siméon, Paris, 1875, p. 227.

image was seated; in its left hand were a shield and four spears and in the right a spear. His arm was raised in threatening gesture as though he wished to throw it and this spear was placed in an "amiento = atlatl."

Both of these authorities give us pictures, by native artists, of this idol (fig. 4 *A*, *B*,) and both agree in their description of the second idol.

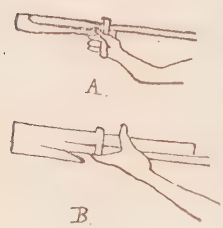

FIG. 4.
A.—Duran's Atlas.
B.—Ramirez Codex.

It carried also *four spears* but we are told that in the other hand it held a "fan" of precious feathers. These were green and yellow and were fastened to a circular plate of burnished gold like a mirror . . . which fan was called "y tlachiayan." Duran's illustration corresponds to this description but pictures the circular plate as a hollow circle divided by lines into four portions.

Reference to Tezcatlipoca's picture in Sahagun's Laurentian MS. proves this "fan" to be a mis-described "tlachieloni," an instrument we find thus represented in the hand of this and other gods (fig. 5.) His description is contained in the chapter of this work

FIG. 5.

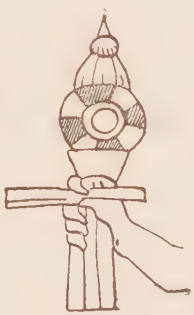

FIG. 6.

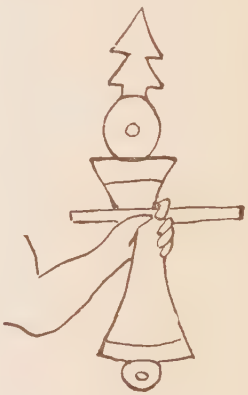

FIG. 7.

Sahagun's Laurentiana MS., Book I.

relating to Xiuhtecuhtli: "he holds in his left hand a shield; in the right what was like a sceptre (fig. 6). It was a circular plate of gold, hollow in the centre. This was surmounted by two balls, one smaller than the other, and there was a point on the top of

the smallest. They called this sceptre Tlachieloni, which means 'seer or looker,' for with it one could hide one's face and look through the circle of gold" (lib. I, cap. XIII). In the text relating to Opuchtli, the reputed inventor of the harpoon, it is described as "a sceptre like a monstrance or pyx, at the top of which projects an arrow point," from which one would scarcely recognize its picture in the same chapter (fig. 7). I do not hesitate in identifying this "tlachieloni" as a badly drawn ceremonial form of the atlatl provided with a finger-hole, that we have studied with Class I.

Notice that this "tlachieloni" is only met with in Sahagun's illustrations to book I, in Duran's Atlas and in the Aubin Codex, all of which date unquestionably from after the Conquest. Even in these it is invariably accompanied by a shield and in the cases of Xiuhtecuhtli and Tezcatlipoca with *spears* or a shield and a banner.

It is also a significant fact that we find only exceptional tlachieloni in the hands of deities *who are usually represented with various forms of authentic atlatl* by the artists of older Codices. Beside Tezcatlipoca, see Xiuhtecuhtli (Pl. II, 9, 24 and III, 1, 4, 5 and 29).

The name *tlachieloni*, meaning "that through which one can look" (from the verb tlachia = to look) is descriptive and would be equally applicable to all the atlatl provided with finger-holes through which one could look. One is led to infer by Duran's text, however, that a symbolism was attached to this ceremonial form of atlatl and that the circle through which one could look had become emblematic of the power of sight. Fray Duran records the popular belief that "Tezcatlipoca saw all that happened in the universe." The circles or rings usually represented about the eyes of Tlaloc conveyed, undoubtedly, a similar symbolism and were the emblem of constant watchfulness and powerful, all-seeing vision.

Pausing now to review the principal Aztec gods in their representations, one cannot but be struck by the fact established by the foregoing testimony that *each god carries, as symbol, some form of atlatl*. Turning to the sculptured monuments of Mexico and Yucatan we find the atlatl and the spear and an almost total absence of any other weapon. The same observation applies to the older Maya and Mexican Codices.

In the Mexican MSS. dating from the time of the Conquest one can trace the disappearance of the atlatl by its increasingly incorrect representations and note its extinction by finding these finally superseded by pictures of the bow and arrow. And thus the inter-

rupted evolution of the truly wonderful atlatl, the spear-thrower of ancient Mexico, came to an end.

The atlatl, although exquisitely carved, covered with gold, inlaid with turquoise, decorated with feather work and exhibiting the remarkable degree of skill attained by an industrious and intelligent race, seems, indeed, to be a fitting epitome of the strange civilization of Ancient Mexico, the real barbarism of which was mitigated by the most marvellous perfection in every detail of industrial art.

Dresden, *August*, 1890.

ILLUSTRATIONS.

PLATE I.

Figs. 1, 2. Sculptured warriors on stone posts of doorway of building known as the "Tennis-Court," Chichen-Itza. Drawings from photographs of casts.

3, 4, 5. Warriors from bas-relief on wall of a chamber. "Palace of the Tigers," Chichen-Itza.

6*a*. Sculptured warrior carrying atlatl below shield, on so-called Sacrificial Stone, City of Mexico.

6*b*. Sculptured warrior presenting atlatl, also on so-called Sacrificial Stone.

7. Picture of Huitzilopochtli holding the Xiuhcoatl = the blue serpent atlatl,— four spears, a shield and banner.

The head-dress strikingly and closely resembles the Ancient Mexican head-dress preserved in Vienna. It has a similar central superposed elevation also ornamented with discs. The design on the border close to the face recalls the symmetrical "castellated" ornamentation on the Vienna head-dress.

Ancient Mexican MS., National Library, Florence, folio 89.

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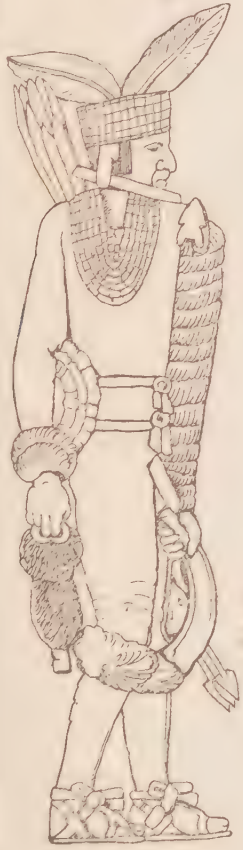

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PLATE II.

	FROM	ACCOMPANIED BY
Fig. 1.	Vues des Cordillères, p. 15.	
2.	Laud MS., . . . p. 18,	spears (2).
3*a*.	So-called Sacrificial Stone. .	spears (2), shield, banner.
3*b*.	Mendoza Codex, . . p. 5,	spears (3), shield.
4.	Borgian " . . p. 34,	spears (2).
5.	Féjérvary "	spears (2).
6.	Bas-relief, Dupaix I, . p. 23,	spears (4), shield, etc.
7.	Laud Codex, . . . p. 20,	spears (2) double.
8.	Vatican Codex A, . . p. 70,	spear (1) and quiver.
9.	Borgian " . . p. 54,	spear-bundle.
10.	Laud " . . p. 6,	spear (1).
11.	Féjérvary " . . p. 32,	shield, banner.
12.	Vienna " . . p. 50,	spears (2), banner.
13.	Selden " . . p. 1,	shield.
14.	Vatican " A, . . p. 17,	spear (triple).
15.	" " " . . p. 27,	spears (3).
16.	" " " . . p. 14,	" "
17.	Bologna " . . p. 21,	spears (3), shield.
18.	" " . . p. 24,	" " "
19.	" " . . p. 14,	" " "
20.	" " . . p. 15,	" " "
21.	Borgian " . . p. 18,	spears (3), shield, banner.
22.	" " . . p. 69,	" (2), " "
23.	Féjérvary " . . p. 43,	" (3).
24.	Vatican " A, . . p. 29,	" (3).
25.	" " " . . p. 27,	" (2).
26.	" " " . . p. 13,	" (3).
27.	Borgian " . . p. 4,	spear (double), shield, banner.
28.	Dresden " . p. 65,	spears (2).
29.	" " . . p. 60,	copal-bag?
30.	Carved on teponaxtle in British Museum, . . .	spears (2).
31.	Dresden " . . p. 47,	spears (2).
32.	" ed. Kingsborough, p. 48,	" "
33.	Dresden Codex, . . p. 46,	shield (transfixed prey in vignette below).
34.	" " . . . p. 50,	spears (2).
35.	" " . . p. 60,	spears (2).
36.	" " . . . p. 65,	spear (1).
37.	Troano " . . p. 47,	spears (2).
38.	" " . . . p. 7,	spear (1).
39.	Engraved on Humboldt celt.	
40.	Dresden Codex, . . p. 49,	spears (2).

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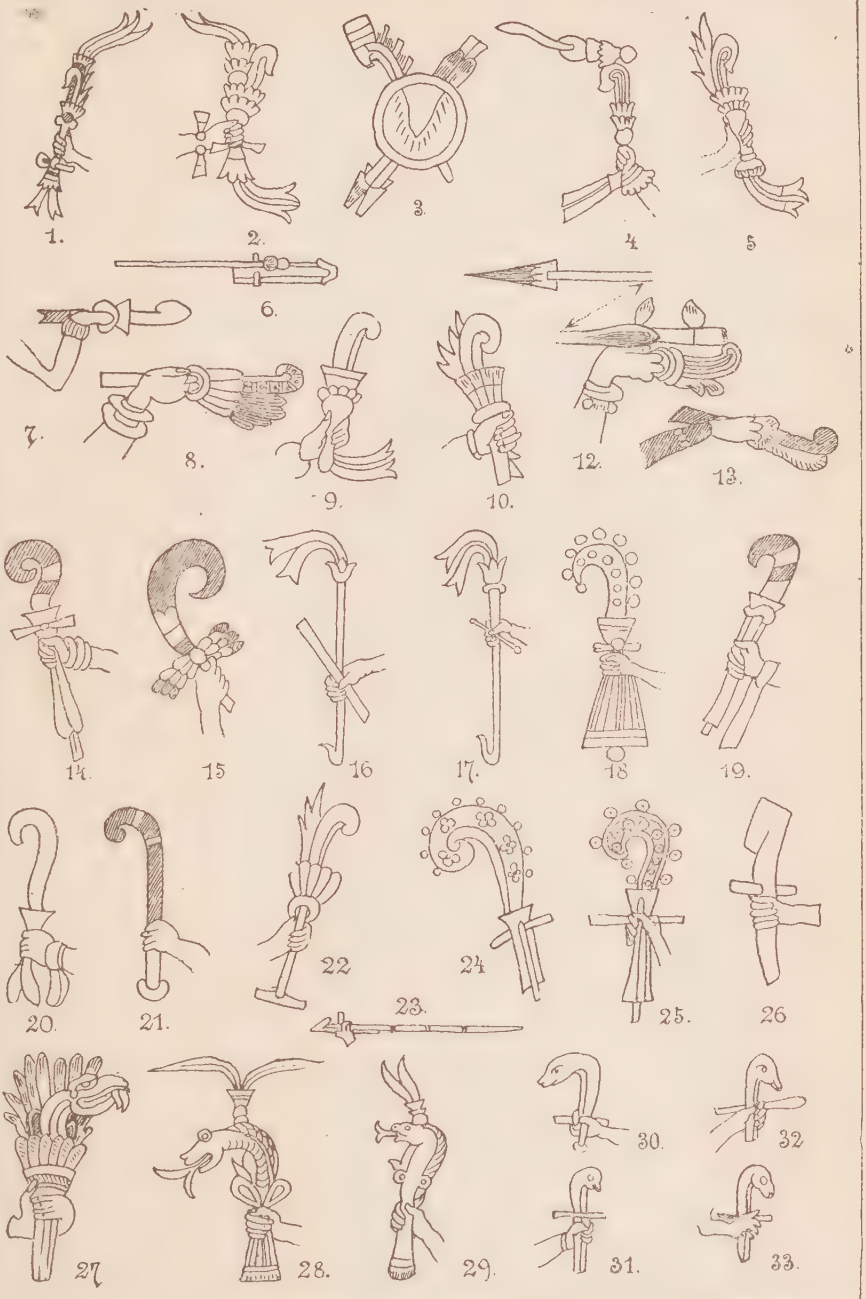
PLATE III.

Fig.	FROM	DESCRIBED BY CONTEMPORARY TEXTS AS	ACCOMPANIED BY
1.	Vatican Codex,	p. 32, Xiuatlatl.	
2.	" "	p. 33, "a certain sort of arm as a bow."	spears, shield, banner.
3.	Vienna "	p. 20,	spear, shield.
4.	Vatican "	p. 56,	serpent, staff.
5.	" "	p. 74,	spears, shield.
6.	MS. History of Mexico,	p. 33, Hieroglyph of town.	
7.	Féjérvary Codex,	p. 44,	spears.
8.	Borgian "	p. 14,	" shield.
9.	Vatican, "	p. 68,	" " banner.
10.	Telleriano Remensis Codex,	p. 8, Xiuatlatli,	" provision bag.
12.	Borgian "	p. 61,	" shield.
13.	Féjérvary "	p. 4,	"
14.	National Library, Florence, MS.,	Mixcoatl xonoquitl,	" " banner and provision bag.
15.	Duran's Atlas, II,	p. 6,	shield.
16.	Vatican Codex,	p. 81, "amiento made of wood."	" and banner.
17.	" "	p. 82, "amiento made of wood,"	" " "
18.	Ramirez " VII,	p. 19,	"
19.	" " VIII,	p. 13,	spears, shield, banner.
20.	Vatican "	p. 8,	"ecacocœ."
21.	" (A) "	p 14,	copal-bag.
22.	" " "	p. 61, Xiuatlatli,	spears, shield.
23.	MS. Hist. Sahagun,		spear, shield.
24.	" " "		shield.
25.	" " "		spears.
26.	Boturini MS.,	Hieroglyph of town.	
27.	Borgian Codex,	p. 22,	" shield, banner.
28.	Ramirez x,	p. 17,	" " "
29.	National Library, Florence, MS.,		" " "
30.	MS. Hist. Sahagun.		
31.	" " "		
32.	" " "	Xiuhatlatl,	spear.
33.	" " "		spears and shield.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